



CLASSIFICATION OF IMPACTION

*Impaction: Complications

1) Intraoperative complications

- a) Factors of tuberosity –
- Occurs mostly in third molar surgery .
 - If the fractured tuberosity has periosteal attachment, then the wound is primarily closed.
- b) Dislodgement into maxillary sinus-
- Occurs when tooth is partially erupted with a conical root.
 - Removal is done through Caldwell Lue approach.
- c) Dislodgement into soft tissues -
- Occurs when an inadequate flap is raised.
 - The tooth should be localised by radiographs followed by early surgical removal to avoid infection.
- d) Damage to adjacent molar –
- Occurs due to uncontrolled use of burs or chisel.

2) Postoperative complications

- Infection
- Dry socket
- Oroantral fistula



*Surgical techniques

1) Removal of impacted cuspids in class I position -

- Soft tissue flap
- Bone Removal
- Elevation of tooth
- Wound irrigation and closure

2) Removal of impacted cuspids in class II position –

Laterally placed impacted canine can be exposed using,

- Trapezoidal flap – two vertical limbs
- Semilunar flap – no vertical limbs
- Triangular flap – one vertical limb

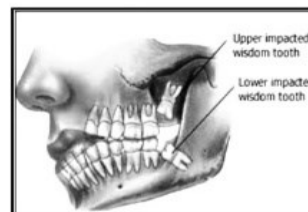
After the flap is raised, bone is removed by wound debridement and closure.

3) Removal of impacted cuspids in class III position –

- a) Crown in the palatal bone and root on buccal side
- Semicircular flap is raised
 - Circumferential bone removed – if flap is replaced
 - Wound closed primarily.
- b) Maxillary cuspid lying in the line of arch –
- Along alveolar crest
 - Retain as much as bone since they provide hard tissue of denture bearing area.

Osteoplastic flap

- Trapezoidal flap
- Bone is osteotomized
- Canine is removed in toto or in sections
- Osteomucoperiosteal flap is replaced
- Primary closure





CLASSIFICATION OF IMPACTION

*Impacted cuspids

Position of impacted canines

- In **maxilla**, the malposed canines are found three times more frequently on palatal side of arch than labial side.
- They are related upon longitudinal axis.
- They are usually in an oblique position.
- In **mandible**, the cuspids are rarely found in horizontal position or on the ridge.
- Mostly located on the lateral surface of mandible.

Localising Impacted Maxillary Canines

a) Clinical clues:

Presence of distinct bulge in the palate or on the buccal aspect of the maxilla.

- If canine is labially impacted, there will be a deflection of the lateral incisor.

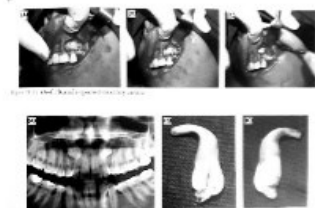
b) Radiographic Localising:

Position of upper canine is assessed from radiographs which are taken in 2 planes to give 3 dimensional impression of the tooth and associated structures.

- Intraoral periapical films
- Vertex occlusal films

There are supplemented with

- Oblique occlusal films
- Anterior occlusal films
- True lateral films
- Tangential mains films
- CBCT



Classification of Impacted Maxillary canines

Classification Based on position in the Dental Arch

Class I – Impacted cuspids in palate

- Horizontal
- Vertical
- Semivertical

Class II – Impacted cuspids on buccal surface

- Horizontal
- Vertical
- Semi vertical

Class III – Impacted cuspids both in palatal process and labial maxillary bone

Class IV – Impacted cuspids located in alveolar process.

Class V – Impacted cuspids located in an edentulous maxilla.

Field and Ackerman Classification

1)Maxillary canines

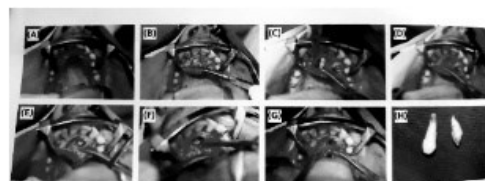
- Labial position
- Palatal position
- Intermediate position
- Unusual position

2)Mandibular canines

- Labial position
- Unusual position

Treatment

- No treatment
- Surgical removal of unerupted canine
- Surgical exposure of the crown with or without orthodontic treatment
- Surgical repositioning
- Surgical transplantation



© 2015 (A-J) Maxillary bilateral palatal impacted canines removed by surgical flapless approach.